

Engineering Division  
OA/W5141

MODIFICATION NOTE NO. 21  
(For Electronics Technicians)

SUBJECT : Cable Replacement for Radiosonde Power Supply  
and Battery Tester, Model 1271-420

PURPOSE : To modify the radiosonde power supply and battery tester,  
for use with the new series of radiosondes and batteries.

EQUIPMENT AFFECTED : Radiosonde Power Supply and Battery Tester, Model 1271-420.

PARTS REQUIRED :

<u>Quantity</u>	<u>Description</u>
1	Female 29" pigtail cable
1	Male 29" pigtail cable
1	Adapter cable 1271-181
1	Adapter cable 1271-182

MOD PROCUREMENT : CLSC will supply a modification assembly kit to all NWS  
upper air stations.

SPECIAL TOOLS  
REQUIRED : Normal Complement of Electronics Technician's Hand Tools.

TEST EQUIPMENT : Volt Ohm Meter or or Digital Volt Meter.

TIME REQUIRED : Two Work-Hours.

MANUAL CHANGES : Insert Schematic into SOLID STATE RADIOSONDE  
BATTERY TESTER MANUAL

GENERAL: This modification will update the radiosonde power supply and battery  
tester, for use with the new series of radiosondes and batteries.

PROCEDURE:

1. Remove AC power.
2. Remove cover from Power Supply and Battery Tester, Model 1271-420.
3. Remove cord relief bushings on cables, front panel.
4. Battery Cable: Male Plug
  - a) Remove green wire at position #7 of S1 switch (meter select switch).  
See figure #1.

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- b) Remove white wire at position #3 of S1 switch (meter select switch).  
See figure #1.
- c) Remove black wire at printed circuit board reference designator number #1. See figure #2.
- d) Remove cable.
- e) Remove one set of 29" pigtail cables from kit or package.

5. Battery Cable: Male

- a) Feed male cable through remaining hole in front panel.
- b) Solder green wire to position #7 of S1 switch (meter select switch).
- c) Solder white wire to position #3 of #S1 switch (meter select switch).
- d) Solder black wire to reference designator number #1 on printed circuit board.
- e) Install cord relief bushing.

6. Radiosonde Cable: Female Plug

- a) Remove green wire at position #6 of S1 switch (meter select switch).  
See figure #1.
- b) Remove white wire at ground side R-11 140 ohm resistor.
- c) Remove black wire at printed circuit board reference designator number #4. See figure #2.
- d) Remove cable.

7. Radiosonde Cable: Female

- a) Feed female cable through front panel hole (the one nearest corner of unit).
- b) Solder green wire to position #6 of S-1 switch.
- c) Solder white wire to ground side of R-11 140 ohm resistor.
- d) Solder black wire to reference designator number #4 on printed circuit board.
- e) Install cord relief bushing.

8. Continuity Check

- a) Refer to figure 3 for Molex connector layout.
- b) Check continuity between the following points.

Battery cable male connector.

<u>From</u>	<u>To Molex Connector</u>
Position #7 S1 (green lead)	Pin B
Position #3 S1 (white lead)	Pin C
P. C. board ref. designator #1 black	Pin A

Radiosonde cable female connector

<u>From</u>	<u>To Molex Connector</u>
Position #6 S1 (green lead)	Pin B
R-11 140 ohm ground side (white lead)	Pin C
P. C. board ref. designator #4 black	Pin A

NOTE: Schematic for model 1271-400/1271-420 included.  
Schematic is the same for both models.

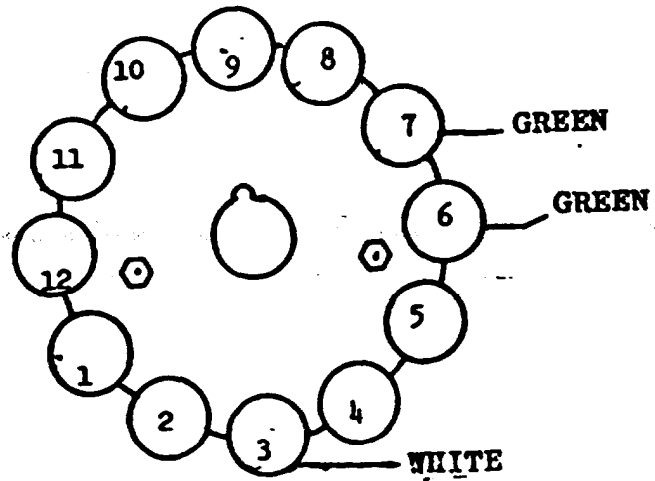
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Manual Changes:

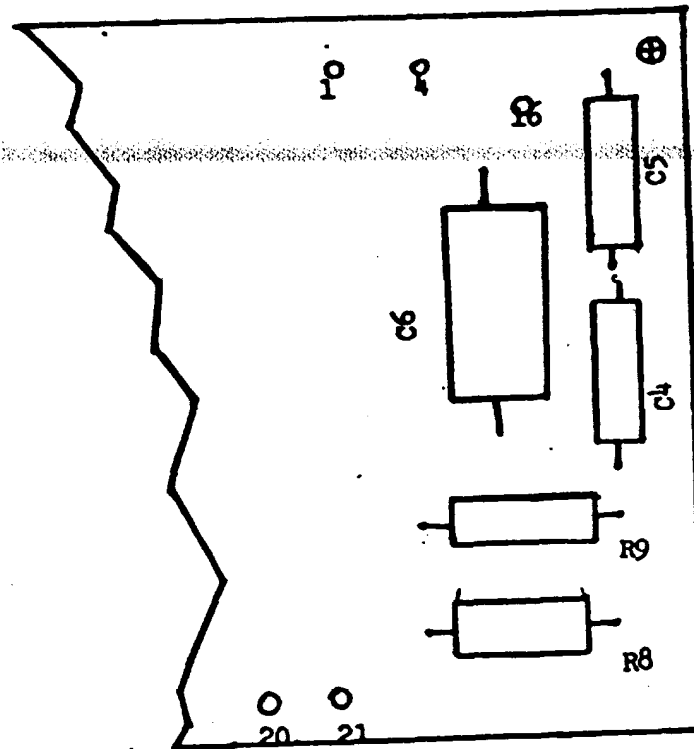
Insert schematic into SOLID STATE RADIOSONDE BATTERY TESTER MANUAL.

Attachments: Figure No. 1, Meter Select Switch  
Figure No. 2, Printed Circuit Board  
Figure No. 3, 29" Pigtail Cable  
Schematic: VIZ Model 1271-400/1271-420

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**FIG. 1**  
**S1, REAR VIEW**  
**METER SELECT SWITCH**



**FIG. 2**  
**PRINTED CIRCUIT BOARD**  
**TOP VIEW**

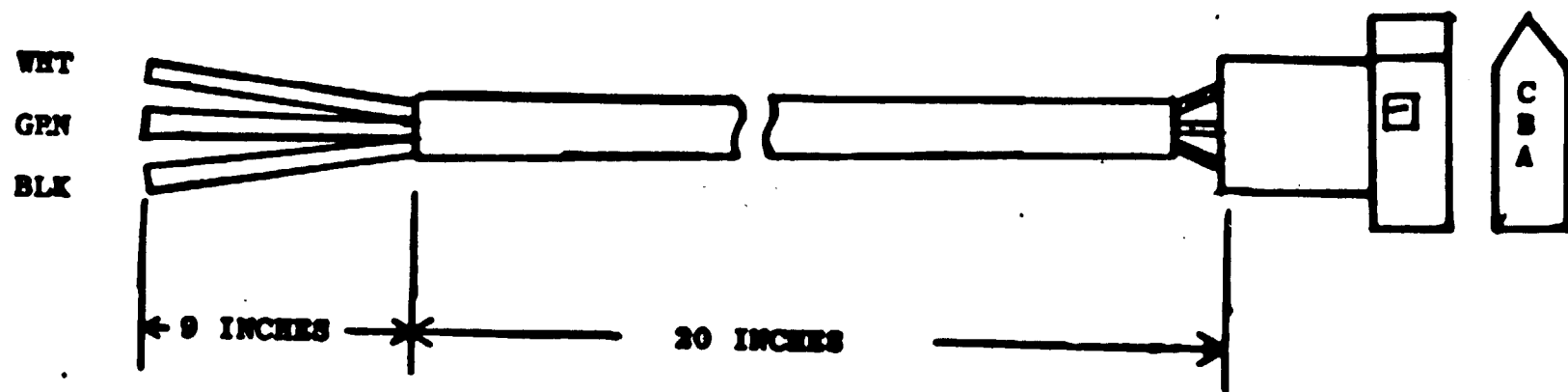


FIG. 3  
PIGTAIL CABLE ASSEMBLY

1. ORG		2. PERIOD		3. STATION		4. AREA SECTOR		5. INITIALS		6. HOURLY SALARY		7. REPORTED BY:		8. GENERAL PURPOSE		WS FORM H-28 (7-73)		U. S. DEPARTMENT OF NATIONAL WEATHER SERVICE		COMMERCE NOAA SERVICE	
		MONTH	DAY																		
<b>ENGINEERING PROGRESS REPORT</b>																					
S E Q	9. STATION	10. AREA SECT	11. CATEGORY PROGRAM	12. WORK TYPE	13. TOTAL - TIME (Hours)					14. TRAVEL MILES	15. PER DIEM <small>(Travel wh. \$)</small>	16. COST CODE	17. COST <small>(Dollars)</small>	18. ORDER NUMBER	19. NOTES						
					RT	NT	ST	CT	OT												
1A			R FIRI	MIOD												MODIFICATION # 21 DATE Completed					
1B																					
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1L																					
1M																					
N			ADMIN.													FOR LEAVE ENTER WORK TYPE: LVA = Annual Leave LVC = Compensatory Leave LVH = Holiday LVS = Sick LVM = Military or Other LVN = Combination of Above					
O			LEAVE																		
20. REMARKS																COST CODES: C = CONTRACTS    P = PURCHASED LOCALLY    M = MISCELLANEOUS G = GOVERNMENT FURNISHED					
REPORT THIS MOD INTO EMRS BEFORE 12-1-80																ENTER HOURS HERE					